ANIMAL HEALTH INFORMATION

Wildlife Diseases

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Many wildlife diseases are significant to human health.

Many wildlife diseases are transmissible to humans. Diseases such as rabies and plague are familiar to many people, but there are other, lesser known diseases that also are significant to human health. Persons who often come in contact with wildlife should be aware of these diseases and take precautions to minimize the risk of infection. Some diseases can be transmitted by ticks or fleas or by ingestion of contaminated food and water. Anyone who engages in outdoor activities should know about disease prevention methods. This is a partial list, including the diseases most likely to occur in MA.

Giardiasis:

Giardiasis is an intestinal disorder caused by the protozoan *Giardia Intestinalis*. Human infection can occur from ingestion of Giardia cysts in contaminated water, or from contact with an infected individual. Wild animal feces also can be a source of Giardia infection and may contaminate lake and stream water. Symptoms of giardiasis include chronic diarrhea, abdominal cramps, bloating and fatigue. Giardiasis is not usually a life threatening disease, and once diagnosed can be effectively treated with medication. To prevent the disease, avoid drinking or accidentally ingesting untreated water.

Hantavirus:

Hantavirus includes a group of viruses that can cause illness with fever in humans, sometimes accompanied by kidney, blood, or respiratory ailments. It can sometimes be fatal. The febrile illness includes fever, headache, muscle aches, nausea, vomiting and lower back pain. Field and commensal rodents are the natural reservoirs for viruses in this group and these viruses are found worldwide. Infected rodents shed viruses in their urine, feces and/or saliva and can remain chronically infected. The contaminated excreta from infected rodents are thought to be the source of virus for aerosol and direct (animal bite) transmission to other rodents and humans. Human exposure to hantavirus is prevented by avoiding contact with rodents and rodent-infested areas, by controlling rodent populations, and by proper sanitation.

Leptospirosis:

Leptospirosis is caused by the bacterium *Leptospira interrogans*. It affects a wide variety of wildlife species, including skunks and raccoons. Human cases of leptospirosis usually are transmitted from commensal rodent populations. Infection can occur from direct or indirect contact with the urine of infected animals, either in food or water or on surface areas. In humans, the disease can range from very mild and unnoticeable to serious and life threatening. Symptoms include fever, headaches, weakness and vomiting. Commensal rodent control and proper sanitation are important in reducing the risk of infection.

Lyme Disease:

Lyme disease, first recognized in Old Lyme, Connecticut, is caused by the bacterium *Borrelia burgdorferi* and is transmitted by several species of ticks and fleas. The symptoms of Lyme disease are variable, but generally progress through three stages. At first there are “flu-like” symptoms such as fatigue, fever, sore throat, nausea and coughing. Many of those infected develop a small red lesion around the site of the tick or flea bite. As the disease progresses many persons experience recurrent arthritis, usually in the knee and elbow joints.

Rabies:

Rabies, sometimes called “hydrophobia,” is a viral disease that affects the central nervous system. Rabies is normally transmitted to humans from the bite of a rabid animal or from the saliva of a rabid animal entering the blood stream through open cuts or scratches. Only warm-blooded animals are susceptible to the rabies virus. In Massachusetts, the most commonly infected wild animals are raccoons, skunks, foxes, bats and coyotes. Rabid animals cannot always be identified easily. Any animal that seems abnormal in appearance or behavior, acting either overly aggressive or unusually tame, should be avoided. There is the possibility of rabies exposure with any wild animal bite or attack, so if this occurs the Massachusetts Department of Health should be contacted.

Tularemia

Tularemia, sometimes called “rabbit fever,” is caused by the bacterium *Francisella tularensis*. Humans may become infected through a bite of an infected tick. Humans can also become infected after touching, handling, or eating an infected animal. Animals most likely to be infected include rabbits and rodents such as voles, squirrels, muskrats, and beavers. Less common means of spread include contact with water or soil that has been contaminated by an infected animal, being bitten by an infected animal, or inhaling contaminated particles. Tularemia is not spread directly from person to person. Symptoms of tularemia infection include fever, infected sores at the point where the bacteria entered the body, and general “flu-like” symptoms. With prompt medical treatment, few cases are fatal. Currently Martha’s Vineyard is experiencing an outbreak believed to be caused primarily through inhalization of aerosolized rabbit feces.

West Nile Virus

West Nile Virus (WNV) can cause illness varying from a mild fever to more serious disease like encephalitis or meningitis. WNV grows in birds and is spread from bird to bird by infected mosquitoes. If mosquitoes infected with the virus bite horses or humans, the animal or person can become sick. Most WNV infections do not cause any symptoms. Mild WNV infections can cause fever, headache and body aches, often with a skin rash and swollen lymph glands. In a small percentage of people infected by the virus, the disease can be serious, even fatal. More severe infections can cause headache, high fever, neck stiffness, stupor, disorientation, coma, tremors, convulsions, paralysis and, sometimes, death. Persons older than 50 years of age have a higher risk of developing severe illness.

There is no specific treatment for WNV infection. People with mild WNV infections usually recover on their own. Doctors can provide supportive therapy for people who have more serious complications, such as encephalitis or meningitis. However, approximately 10% of people with severe WNV infections die.

This information is provided for awareness purposes only. Prepared from United States Department of Agriculture - Animal and Plant Health Inspection Service–Wildlife Services materials.

For more information please contact:
your local veterinarian or
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